DOCUMENT RESUME

ED 460 920 SO 033 307

TITLE Monsoon Winds to the "Land of Gold."
INSTITUTION California Univ., Berkeley. Office of Resources for International and Area Studies.
PUB DATE 2001-00-00
NOTE 80p.; Part of the Teaching about Southeast Asia Project, Summer 2001. Figures may not reproduce well. Funded by Center for Southeast Asia Studies, U.C. Berkeley.
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PUB TYPE Guides - Classroom - Teacher (052)
EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Ancient History; *Asian Studies; Cooperative Learning; Foreign Countries; *Geography; Grade 6; Grade 7; Integrated Activities; Intermediate Grades; Junior High Schools; Simulation; Social Studies; Student Educational Objectives; *World History
IDENTIFIERS *Asia (Southeast); California History; Han Dynasty; Roman Civilization; *Roman Empire; Trade Routes

ABSTRACT

This integrated unit, intended for use with sixth or seventh graders, introduces students to the trading networks and geographic factors that influenced the maritime spice trade from southeast Asia to the Roman Empire and Han China during the period 100 B.C. to 100 A.D. The unit is designed so that students work in cooperative groups in a series of activities to learn how the ancient world was unified by this sea trade. The unit would be most effective if taught at the end of a year-long study of ancient world history or as an introductory unit to the Age of Exploration. It is organized into the following sections: Overview and Contents; "Artifacts"; "Primary Sources"; "Regional Grid Map"; "Historic Maps"; "Background Poster Activity"; "Trade Simulation"; "Imports/Exports"; "Extensions"; "Vocabulary"; and "References/Links." It provides a focus question, California's world history standards, educational objectives, lessons for introducing the topic and for developing the topic, and other activities, including culminating and assessment activities. (Contains a 33-item bibliography, a five-item student bibliography, and a list of seven Web sites.) (BT)

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ORIAS Center Teaching About Asia Summer Project 2001

ED 460 920

Monsoon Winds to the "Land of Gold"

Office of Resources for International and Area Studies (ORIAS)
2223 Fulton Street Rm 338
University of California
Berkeley, CA 94720-2306

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LESSON BOX

	OVERVIEW AND CONTENTS
	ARTIFACTS
	PRIMARY SOURCES
	REGIONAL GRID MAP
	HISTORIC MAPS
	BACKGROUND POSTER ACTIVITY
	TRADE SIMULATION
	IMPORTS/ EXPORTS
	EXTENSIONS
	VOCABULARY
	REFERENCES/LINKS

Monsoon Winds to the "Land of Gold"
OVERVIEW

OVERVIEW CONTENTS

Focus Question
Grade Level
CHSS Standards
Objectives

Lesson:
Introducing Topic:

- Anticipating Questions
- Artifacts

Developing Topic:

- Historic Maps
- Primary Sources
- Background Poster
- Overview Maps
- Spice Trade Simulation

Culmination
Assessment
Extensions
Vocabulary
References

FOCUS QUESTION: How did spices get to the Roman Empire from Southeast Asia in ancient times?

For more than three thousand years, the ancient world was linked by elaborate trading routes that connected the Mediterranean World with the far off lands of Asia. As caravans carried exotic goods on the Silk Road to burgeoning markets in the west, a parallel ocean trade had existed for centuries. A complex network of sailing ships, dependent on seasonal monsoon winds, carried cargoes from islands in Southeast Asia to ports throughout the ancient world. The demand for these fragrant spices, worth their weight in gold, spurred a search for routes to the mysterious "Golden Khersonese." The location, Chryse, which means "land of gold," was concealed for centuries by merchants eager to protect their lucrative trade. Geographers, astronomers, and sailors soon created the maps which charted new understandings of our world.

This integrated unit introduces students to the trading networks and geographic factors that influenced the maritime spice trade from Southeast Asia to the Roman Empire and Han China during the period 100 BC to 100 AD. *Students work in cooperative groups in a series of activities to learn how the ancient world was unified by this sea trade.* This unit would be most effective if taught at the end of a year-long study of ancient world history or as an introductory unit to the Age of Exploration. It presumes a basic knowledge of the major civilizations of the ancient world.

GRADE LEVEL: 6th or 7th TIME REQUIRED: Two weeks

WORLD HISTORY STANDARDS:

6.6 "Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of China. (7) Cite the significance of the trans-Eurasian "silk roads" in the period of the Han Dynasty and the Roman Empire and their locations."

6.7 "Students analyze the geographic, political, economic, religious, and social structures during the development of Rome." (3) Identify the location of and the political and geographic reasons for the growth of Roman territories and expansion of the empire, including how the empire fostered economic growth through the use of currency and trade routes."

OBJECTIVES

Geographic	Recognize environmental factors that influenced maritime trade routes and the establishment of major trading centers in classical times.
	Identify the major imports and exports of the cultures along the coastal trade routes.
	Identify the major regions and islands that comprise Southeast Asia.
Historical	Evaluate perceptions of the ancient world (especially the fabled "Golden Khersonese") through ancient maps and primary source travelers' accounts.
	Discuss implications of archaeological evidence recently discovered.
Economic	Study the spices that were imported from Southeast Asia that were the objects of international trade.
	Recognize the economic factors that effected the trade in luxury goods. Experience the principles of "market supply, scarcity, and demand" in a simulated trading activity.

LESSON

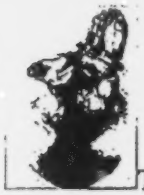
Introductory Activity II: ANTICIPATING QUESTIONS

This unit begins by asking students to brainstorm lists of everyday natural products that we take for granted today. The class can work in three groups or this can be done as a whole class activity. Groups could also make a collage of images from magazines to develop the idea.

- Begin by naming favorite dishes they enjoy for dinner -- what is popular? Why?
  - Try to identify specific ingredients or flavors that account for their love of these foods. Encourage them to name foods that may have originated in other cultures. What unusual ingredients can they name? Can they name the countries where specific foods or spices originated?
- Do the above activity with fragrances.
  - See if the students can list all the ways our society uses scents (perfume, cologne, lotions, room deoderizers, incense, potpourri).
  - Can they name specific fragrances or brand names? Are some scents associated with certain cultures or countries?
  - Display the class list so that more things can be added as the unit progresses.
- The third prompt asks students to name all those items (and ingredients) that are used as medicines. Broaden this category to include poisons, fumigants, insecticides and ointments. Ask the class if they know where the ingredients originate.

Note: You can find information on the history and current uses of individual spices at the Spice Encyclopedia web page posted by today's spice merchants at http://www.spiceadvice.com/index.html

Introductory Activity II: ARTIFACTS



The second introductory activity creates anticipation and gives the class some hints about what they're about to learn.

Developing the Topic I: HISTORIC MAPS

The artifact box activity above should show the inter-connectedness of cultures and some exchange of goods. It should raise questions about the actual geography. (*Where are we? Who were these people? What did they know?*) The examination of historic maps gives students the opportunity to speculate on Greco-Roman perceptions of the shape of the world.

Developing the Topic II: PRIMARY SOURCE READINGS -- Trade Routes

In addition to the historic maps viewed in the opening activity, students will better understand the how ancient people viewed their world by reading written accounts.

Distribute "Primary Source Records" giving one passage to each group. Have students read and discuss the passage. Ask them to evaluate the source for accuracy. Using the world map, have groups present each passage to the class to underscore the incomplete knowledge of world geography during the Greco-Roman period.

Developing the Topic III: BACKGROUND POSTER

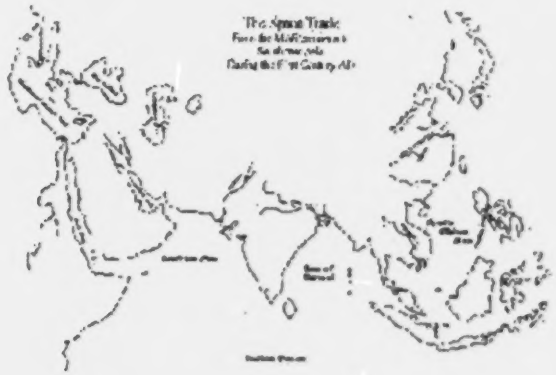
Supplement student observations with additional information provided in background notes. Indicate the segmented nature of the ancient maritime trade based on the readings and the geographic knowledge at the time. Emphasize the fact that the two extremes on the trade route (Rome and China) knew very little about the other.

A thriving trade in spices existed in the ancient world, but certain items were only grown in Southeast Asia, India or China. (See chapter two in *Exploration by Sea* for a good description of the spice routes.) To learn about the major goods of the spice trade, students will return to their groups to make posters to "advertise" spices.

Developing the Topic IV: OVERVIEW REGIONAL MAPS

Using the teacher's map as a guide, help students label the major trading centers from the Mediterranean to Southeast Asia during the first century A.D. The grid map is provided for students to enlarge the map for a wall display. These trading centers (or *entrepots*) will be the bases for the Trade Simulation.

- Teacher's Map
- Student's Map
- Grid Map for Enlargement



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Developing the Topic V: SPICE TRADE SIMULATION

In this activity, your students continue to work in groups that will represent major production centers for goods traded by sea during the period from 100 BC to 100 AD. They will make tokens to represent "luxury goods" that were typical of their culture. In a three-round simulation, they will trade for the goods they desire. Because of language barriers that existed, students must conduct their trades silently or use gestures. Point out to the students that often traders would speak more than one language to be effective.

Developing the Topic VI: CULMINATION

Bringing it all together:

- Return to Overview Maps. Direct students to label individual maps to show the seafaring routes. Have the groups assist in labeling the classroom map.
- Have students design an icon or symbol to represent three major exports for their entrepot. Ask for volunteers to draw theirs on the classroom map. Have students list (or draw) these export items in the appropriate regions on their maps.
- Return to the Artifact Box. What new understandings do the students have about the contents? Would their "story" be any different now?
- (Optional) Students can summarize the trading simulation and their understanding of ancient trade in a five paragraph writing assignment

ASSESSMENT:

- Artifact Box summary
- Spice Poster (group work/presentation)
- Trade Simulation artifact(s)
- Trade Simulation Summary/Response
- Map labeling: trade routes, exports and archaeological evidence
- (Optional) Discussion of archaeological finds
- (Optional) Five paragraph summary

EXTENSIONS:

- Read chapters 1, 2 and 3 from *The Silk and Spice Routes: Exploration by Sea*. Discuss the ways this book confirms or enhances understanding of the trade in spices.
- Distribute "Archaeological Artifact: Funan" handouts to students. Examine the images to discuss these questions: What do you see? Where did the item originate? What do these discoveries indicate about contact with Southeast Asia during ancient times?
- Students can research ancient shipbuilding and draw examples of the various distinctive sailing vessels from each culture.
- Make a dish that features a particular spice as an important ingredient. Feature cinnamon, ginger, cloves, cardamom, nutmeg, mace or pepper.
- Research the ingredients in favorite candy bars (See "The World in a Candy Bar" lesson) to recognize how international trade is part of today's global economy.

VOCABULARY:Unit vocabulary related to economics and geography

REFERENCES: Bibliography, Websites, Student Resources

Monsoon Winds to the "Land of Gold"
ARTIFACT BOX ACTIVITY

ARTIFACT BOX

Artifact Box

The second introductory activity creates anticipation and gives the class some hints about what they're about to learn. Open your "artifact box" (which you've prepared in advance) that contains the following:

Artifact A: Map by Claudius Ptolemy

Artifact B: Photo of Roman Coin

Artifact C: Egyptian Bronze Vase

Artifact D: Excerpt from *Pleripus Maris Erythraei*

Other items you may include:

One packet of cloves or peppercorns,
An Egyptian glass bead,
A roll of papyrus,
A piece of silk.

Guided Discussion

As you reveal each item, have the students consider the collection. Ask your students to pretend that they are archaeologists. Tell the class that this mysterious box, found buried along the Malabar coast in Southwest India, has come to your classroom for analysis.

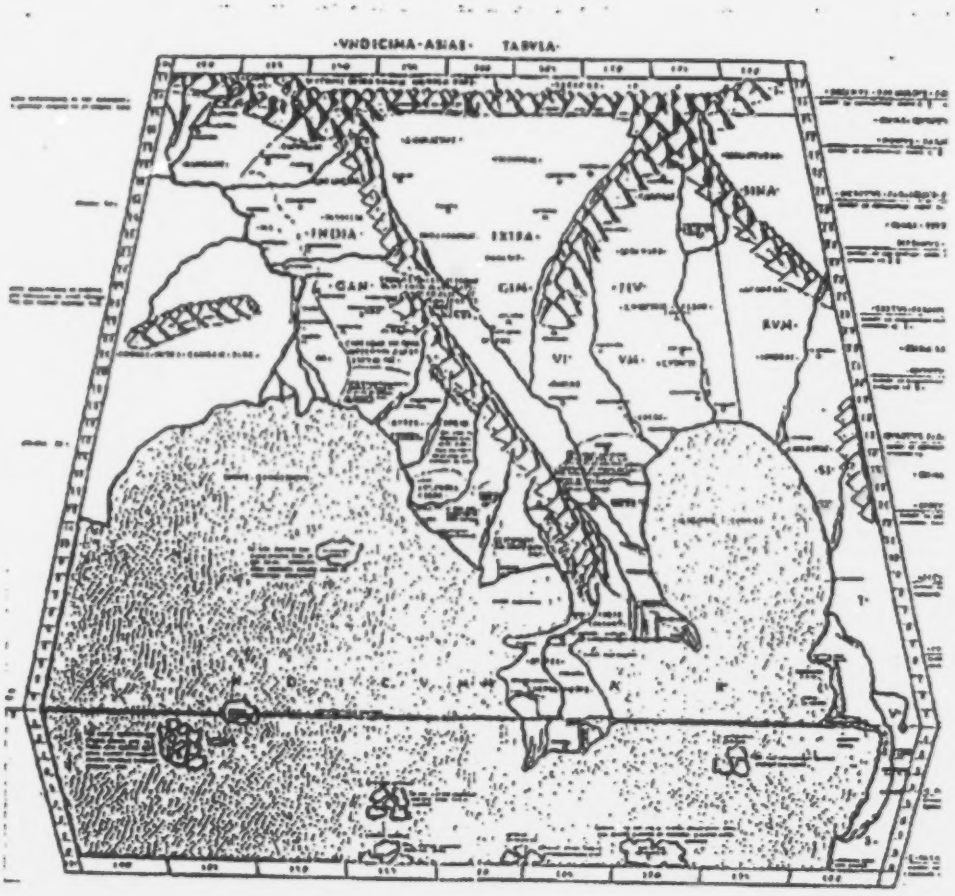
- **What "story" does this box tell?**
- **What does the Roman coin reveal?**
- **What does the text tell?**
- **Where did silk originate?**
- **Why are the items together?**
- **Why were they found in India**

The teacher should encourage ideas that mention a range of goods from different, distant cultures. The map indicates incomplete knowledge of geography; travel by ship, coastal geography and monsoon winds are revealed by the *Pleripus*. Focus student inquiry on these questions:

- **What was carried by sea?**
- **What is the meaning of the spices?**
- **How were these items used?**
- **Might the items indicate the barter or trade?**
- **Who were the traders or sailors?**
- **What cultures would be involved in moving goods?**
- **How far did they travel?**
- **How far did the goods travel?**
- **Was this the final destination?**

Writing Prompt

After the students express their various ideas, ask them to write an imaginary story that explains the "find." (The discovery of this collection of artifacts is fictional; they cannot be identified precisely. This "into" activity is designed to interest and inspire the class for the investigation that follows).



Artifact A

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Artifact B

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Artifact C

Artifact Box - Item D
Pleripus Maris Erythraei

Sometime in the middle of the first century A.D. an anonymous merchant or sailor compiled a guidebook to the ports and sailing conditions of the Erythraean Sea. Known as the *Pleripus Maris Erythraei* ("Guide-book of the Erythraean Sea") it is the only document of its kind known to have survived. The regions we know as the Gulf of Aden, the Persian Gulf and the Indian Ocean were called the Erythraean Sea by ancient geographers, sailors, and travelers. In the translation below, the author refers to India's Malabar coast where large ships came:

> **. . .because of the volume and quantity of pepper and malabathron (a form of cinnamon), they (the ports of southwestern India) offer a market for: mainly a great amount of money clothing with no adornment, in limited quantity multicolored textiles sulphide of antimony; coral raw glass copper, tin, lead, wine, in limited quantity**
>
> **They export pepper, good supplies of fine quality pearl; ivory; Chinese cloth; nard from the Ganges area; malabathron brought from the interior; all kinds of transparent gems; diamonds; sapphires; tortoise shell.**

Excerpt from *Pleripus Maris Erythraei*

Monsoon Winds to the "Land of Gold"
PRIMARY SOURCE ACCOUNTS

This passage from the Bible shows the rituals for annointing the tabernacle in the Sinai wilderness:

Moreover, the Lord spake unto Moses, saying, 'Take thou also unto thee principal spices, of pure myrrh five hundred shekels, and of sweet cinnamon half so much, even two hundred and fifty shekels and of sweet calmus two hundred and fifty shekels. And of cassia five hundred shekels after the shekel of the sanctuary, and of olive oil an hin: And thou shalt make it an oil of holy anointment, an ointment compound after the art of the apothecary: it shall be an holy anointing oil.

Exodus 30: 22-25

The Spice Trade: a Bibliographic Guide to Sources of Historical and Economic Information, Welch, Jeanie. p. ____

The Assyrian king recorded his disputes with Samsi, an Arabian queen whose territory was south of his territory. His successor Sargon II received "all kinds of aromatics" as presents from Queen Shamshi.

As for Samsi, Queen of Arabis, I took from her 1,100 prisoners, 30,000 camels, 20,000 oxen, 5,000 measures of spices of all kinds, and she fled for her life, like a wild ass, to the waterlesss town of Bazu. The people of Mas'a, Tema, Saba', Haiappa, Badana, Hatti, and the tribe of Idiba'leans from far away to the west, knew of my power and bowed to my rule. As one, they brought me tribute; male and female camels and all kinds of spices.

Annals of Tiglathpileser III
King of Assyria, 744-727 BC

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

A description of the Queen of Sheba in the Bible:

She came to test him with difficult questions. She brought immense riches to Jerusalem with her, camels laden with spices, great quantities of gold, and precious stones. On coming to Solomon, she opened her mind freely to him; and Solomon had an answer for all her questions, not one of them was too obscure for the king to expound. And she presented the king with a hundred and twenty talents of gold and great quantities of spices and precious stones; no such wealth of spices ever came again as those given to King Solomon by the Queen of Sheeba.

Kings 10.1-3.10)
(translation of the
Jerusalem Bible)

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

An anonymous Latin poet describes the magical lifestyle of a phoenix on the imaginary island of Panchaea, thought to be the source of myrrh:

She collects the spices and aromas that the Assyrian gathers, and the rich Arab; those that are harvested by the Pygmy peoples and by India, and that grow in the soft bosom of the Sabaean land. She collects cinnamon, the perfume of far-wafting amomum (cardamum), balsams mixed with tejpat leaves; there is also a slip of gentle cassia and gum arabic, and the rich teardrops of frankincense. She adds the tender spikes of downy nard and the power of Panchaea's myrrh.

Anonymous (Rome)
79-88 AD

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. 12

Spices came from the dangerous edges of the known world:

One day, as we sailed rather far on along the African coast beyond Zanzibar, a place that is called the Mouth of the Ocean, we saw to our right a mass of birds in flight, called albatrosses, at least twice as big as kites. The air was bad there, too. We were all afraid, and the crew and the merchants who had experienced this before said that we were close to Ocean. 'Turn back,' they said to the captain, 'or we shall be taken by the currents and fall towards the Ocean and we shall all be lost.' Where the Ocean meets the known sea it creates a monstrous wave, and there is an undertow from the sea towards the Oean. We were terrified. Some of those birds called albatrosses flew with us a long way, high in the sky, as if to warn us that Ocean was still near.

Cosmas Indicopleustes
Christian Topography 2.29

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

On how cinnamon and cassia are obtained:

The Arabians cover their bodies and faces, all but their eyes, with ox-hides and other skins before going out to collect kasie. It grows in a shallow lake. The lake and all the country round are infested by winged creatures like bats, which screech horribly and are very fierce. They have to be kept from attacking the men's eyes while they are cutting the cassia.
The process of collecting the cinnamon is even stranger. In what country it grows is quite unknown. The Arabians say that the dry sticks, which we call kinamomon, are brought to Arabia by large birds, which carry them to their nests, made of mud, on mountain precipices which no man can climb. The method invented to get the cinnamon sticks is this. People cut up the bodies of dead oxen into very large joints, and leave them on the ground near the nests. They then scatter, and the birds fly down and carry off the meat to their nests, which are too weak to bear the weight and fall to the ground. The men come and pick up the cinnamon. Acquired in this way, it is exported to other countries.

Herodotus, Greek historian
(c. 484 - 420 B.C.)

The best Roman cookbooks required pepper in most recipes. The following lines are from a satire at the time:

The greedy merchants, led by lucre, run
To the parch'd Indies and the rising sun;
From thence hot Pepper and rich Drugs they bear,
Bart'ring for Spices their Italian ware. . .

Persius, Satirist
(34 - 62 A.D.)

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

Those old tales were invented by the Arabians to raise the price of their goods. There is an accompanying story that under the reflected rays of the sun at midday an indescribable sort of collective odour is given off from the whole of the peninsula, which is due to the harmoniously blended exhalation of all those aromas, and that the first news of Arabia received by the fleets of Alexander the Great were these odours, wafted far out to sea.

All these stories are nonsense. In fact cinnamomum, which is the same thing as cinnamum, grows in 'Ethiopia', which is linked by intermarriage with the Cave dwellers. These buy it from their neighbors and bring it over vast seas on rafts which have no rudders to steer them, no oars to push them, no sails to propel them, indeed no motive power at all but man alone and his courage. What is more, they take to sea in winter, around the solstice, which is when the east winds blow their hardest. These winds drive them on the proper course across the bays. When they have rounded the Cape, a west-north-west wind will land them in the harbor called Ocilia, so that is the trading place they prefer. They say that their traders take almost five years there and back, and that many die. On the return journey they take glassware and bronze ware, clothing, brooches, bracelets and necklaces: so here is one more trade route that exists chiefly because women follow fashion.

Pliny the Elder, Natural History
(23 - 79 A.D.)

Chinese sailors decription o f the sea route to the Mediterranean (Ta-ts'in was the Chinese word for "Rome"):

The sea is vast and great; with favourable winds it is possible to cross within three months; but if you meet slow winds, it may also take you two years. It is for this reason that those who go to sea take on board a supply of three years' provisions. There is something in the sea which is apt to make a man home-sick, and several have thus lost their lives.

Kan Ying
Chinese ambassador (97 A.D.)

The Spice Trade of the Roman Empire. J. Innes Miller, p. 134

Leaena, an aged slave, praises her favorite wine (from a Roman comedy):

My beauty of Bacchus! You're old, and so am I, and how I need you!
Compared with you, every other essence is as bilge-water! You are my myrrh, my cinnamon, my ointment of rose, my saffron, my cassia, my rarest of perfumes! Where you are poured, there would I fain be buried!

Plautus, Playwright
(c. 254 - 184 B.C.)

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

They (the people of Ta-ts'in which is also called Li-kan) traffic by sea with An-hsi and T'ien-chu, the profit is ten-fold. They are honest in their transactions and there are no double prices. The budget is based on a well-filled treasury.

Chinese official
The Annals
Later Han (25 - 220 AD)

On account of the trade with India and new communications open to it, there was a drain of precious metals out of the Roman Empire:

And it will not be amiss to set out the whole of the voyage from Egypt, now that reliable knowledge of it is for the first time available. It is an important subject, since in no year does India absorb less than 55 million sesterces of our Empire's wealth, sending back merchandise to be sold to us at one hundred times its prime cost.

Pliny the Elder
Book VI
(23 - 79 A.D.)

The Spice Trade of the Roman Empire, J. Innes Miller, p. _____

At the smallest reckoning 100 million sesterces is the sum which every year India, the silk-growing country of northern China, and the Arabian Peninsula take from our Empire. Such is the cost to us of our exquisites and our women.

Pliny the Elder
Book VI
(23 - 79 A.D.)

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

On using cloves in cooking:

When the beef is boiled, put in the casserole about half a cup of sharp vinegar, some leeks and a little pennyroyal, some celery and fennel, and allow to cook for one hour. Then add half as much honey as you had vinegar, or make it sweeter than that if you like. Cook over a low heat, stirring the pot frequently so that the sauce is wellmixed with the meat. Then grind 50 peppercorns, half a solidus each of putchuk and spikenard, one tremissis of cloves. Carefully grind all these spices together in an earthenware mortar, adding a little wine. When well ground, add them to the pot and stir well. Allow time for them to lose some of their individual force and to blend their flavours into the sauce before it is taken off the fire. If, besides honey, you have must or concentrated must available, you may choose any of the three to add as sweetener.

Anthimus' dietary manual

Greek physician in Roman era

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

The holy book of Islam mentions ginger as one of the aromatics in the next world:

The righteous shall drink of a cup tempered at the Camphor Fountain. God will reward them for their steadfastness with robes of silk and the delights of Paradise. Reclining there upon soft couches, they shall feel neither the scorching heat nor the biting cold. Trees will spread their shade around them, and fruits will hang in clusters over them. They shall be served with silver dishes, and beakers as large as goblets, silver goblets which they themselves shall measure; and brimming cups from the Fountain of Ginger.

Qur ' an

Dangerous Tastes: the Story of Spices. Dalby, Andrew, p. _____

Description of the Malay Peninsula:

. . .the kingdom of Tun-sun is a dependency of Fu-nan. Its king is called K'un-lun . . . the people of Tun-sun practice their doctrine and give them their daughters in marriage; consequently many of the brahmans do not go away. They do nothing but study the sacred canon, bathe themselves with scents and flowers, and practise piety ceaselessly by day and night. In times of sickness, the people vow a bird burial. With songs and dances they are escorted outside town, where birds devour them. The remaining bones are burnt to ashes, put in an urn and sunk in the sea. If the birds do not eat them, they are put into a basket. Burial by fire entails throwing oneself into the fire. The ashes remaining are put in a casket and entombment sacrifices are offered for an indefinite period. There is the wine-tree which remembles the pomegranate. Its flowers are gathered and their juice allowed to stand in a jar. After a few days it becomes an excellent intoxicating wine.

T'ai-p'ing Yu Lan
Third Century, AD

The Golden Khersonese, Paul Wheatley, p. 17

Description of trading in Ethiopia, an important link between the Indian Ocean and the Red Sea:

Azania is situated beyond the country called Barbaria which produces frankincense. . . The region which produces frankincense is situated at the projecting part of Ethiopia, and lies inland and is washed by the ocean on the other side. From here the inhabitants of Barbaria, being near at hand, go up into the interior, and, engaging in traffic with the natives, bring back from them many kinds of spices, frankincense, cassia, calamus, and many other articles of merchandise, which they afterwards send by sea to Adule, to the country of the Homerites, to Further India and to Persia . . . And beyond Barbaria near the ocean and in the remotest part of Ethiopia, is the land of Sasu, in which there are many gold-mines. From Axum to Sasu there are fifty stages more or less. The King of the Axumites, accordingly, every other year, through the governor of Agau, sends there special agents to bargain for the gold, accompanied by many other traders, upwards, say, of five hundred, bound on the same errand as themselves. They take along with them to the mining district oxen, lumps of salt, and iron-ware, and when they reach its neighbourhood they make a halt at a certain spot and form an encampment, which they fence round with a great hedge of thorns. Within this they live, and having slaughtered the oxen, cut them in pieces, and lay the pieces on the top of the thorns, along with the lumps of salt and the iron-ware. Then come the natives bringing gold in nuggets like lupin seeds called tancharas, and lay one or two of these upon what pleases them -- the pieces of flesh, or the parcels of salt, or the implements of iron, and then they retire to some distance off. Then the owner of the meat approaches, and if he is satisfied he takes the gold away, and upon seeing this its owner comes and take the flesh or the salt or the iron. If, however, he is not satisfied, he leaves the gold, when the native seeing that he has not taken it, comes and either puts down more gold, or takes up what he has laid down and goes away. Such is the mode in which business is transacted with the pe ple of that country, because their language is different and interpreters are hardly to be found. The time they stay in the country is five days more or less, according as the natives more or less readily coming forward buy up all their wares. On the journey homeward they all agree to travel well-armed, since some of the tribes through whose country they must pass might threaten to attack them from a desire to rob them of their gold.

Cosmas Indicopleustes
Merchant from Alexandria
Christian Topography

The Spice Trade of the Roman Empire. J. Innes Miller, p. 167

Description of Fa-Hsien's return to China by sea:

. . . took passage on board a large merchant-vessel, on which there were over two hundred souls, and astern of which there was a smaller vessel in tow in case of accidents at sea and destruction of the big vessel. Catching a fair wind, they sailed eastwards for two days; then they encountered a heavy gale, and the vessel sprang a leak. The merchants wished to get aboard the smaller vessel; but the men on the latter, fearing that they would be swamped by numbers, quickly cut the row-rope in two. The merchants were terrified, for death was close at hand; and fearing that the vessel would fill, they promptly took what bulky goods there were and threw them into the sea. Fa-Hsien also took his pitcher and ewer, with whatever else he could spare, and threw them into the sea; but he was afraid that the merchants would throw over his books and his images, and accordingly fixed his whole thoughts on Kuan-Yin, the Hearer of Prayers, and put his life into the hands of (the bodhisattva), saying, 'I have journeyed far on behalf of the Faith. O that by your awful power you would grant me a safe return from my wanderings.'"

The gale blew on for thirteen days and nights, when they arrived along- side of an island, and then, at ebb-tide, they saw the place where the vessel leaked and forthwith stopped it up, after which they again proceeded on their way.

This sea is infested with pirates, to meet whom is death. The expanse of ocean is boundless, east and west are not distinguishable; only by observation of the sun, moon, and constellations is progress to be made. In cloudy and rainy weather our vessel drifted at the mercy of the wind, without keeping any definite course. In the darkness of the night nothing was to be seen but the great waves beating upon one another and flashing forth light like fire, huge turtles, sea-lizards, and such-like monsters of the deep. Then the merchants lost heart, not knowing whither they were going, and the sea being deep, without bottom, they had no place where they could cast their stone-anchor and stop. When the sky had cleared, they were able to tell east from west and again proceed on their proper course; but had they struck a hidden rock, there would have been no way of escape. And so they went on for more than ninety days until they reached a country named Yeh-p'o-ti, where heresies and Brahmanism were flourishing, while the Faith of Buddha was in a very unsatisfactory condition.

Fa-Hsien,
Buddhist monk
written 413-14 A.D.

The Golden Khersonese, Paul Wheatley, p. 38

Description of western Java:

The kingdom of Tan-tan was heard of during Sui times. It is situated northwest ofTo-lo-mo and south-east of Chen-chou. The king's family name is Sha-li, his personal name is Shih-ling-chia. There are something over 20,000 familes in the capital. . .The king holds audience for two periods each day, in the morning and the evening. They often daub his person with fragrant powder. . . he hangs a number of precious ornaments about his neck. . . and wears leather sandals on his feet. When he travels a short distance he is carried in a litter, on longer journeys he rides on an elephant. In battle conch-shells and drums are sounded while banners and flags (are waved). Under the criminal code all robbers and thieves, irrespective of the seriousness of their crimes, suffer execution. The products of the country are gold, silver, white sandalwood . . .

T'ung Tien, Chapter 188, #4,
Third Century, AD

The Golden Khersonese, Paul Wheatley, p. 51

Early Roman description of Southeast Asia:

Apart from those areas too warm for human settlement, the region between the Indus and the Ganges is occupied by black peoples resembling Ethiopians. Between Colis andTamus the coast runs straight. It is inhabited by retiring people who garner rich harvests from the sea . . . In the vicinity ofTamus is the island of Chryse ; in the vicinity of the Ganges that of Argyre. According to olden writers, the soil of the former consists of gold, that of the latter is of silver; and it seems very probable that either the name arises from this fact or the legend derives from the name.

Pomponius Mela, 43 AD

Wheatley, p. 127-129.

The country (Java) abounds with rich commodities. Pepper, nutmegs, spikenard, galangal, cubebs, cloves and all other valuable spices and drugs . . . which occasion it to be visited by many ships laden with merchandise, that yields to the owners considerable profit.

Marco Polo

The Spice Trade: a Bibliographic Guide to Sources of Historical and Economic Information, Welch, Jeanie. p. ____

On where cloves come from:

Also somewhere near India is the island containing the Valley of Cloves. No merchants or sailors have ever been to the valley or have ever seen the kind of tree that produces cloves: its fruit, they say, is sold by genies. The sailors arrive at the island, place their items of merchandise on the shore, and return to their ship. Next morning, they find, beside each item, a quantity of cloves.

One man claimed to have begun to explore the island. He saw people who were yellow in colour, beardless, dressed like women, with long hair, but they hid as he came near. After waiting a little while, the merchants came back to the shore where they had left their merchandise, but this time they found no cloves, and they realized that this had happened because of the man who had seen the islanders. After some years' absence, the merchants tried again and were able to revert to the original system of trading.
The cloves are said to be pleasant to the taste when they are fresh. The islanders feed on them, and they never fall ill or grow old. It is also said that they dress in the leaves of the tree that grows only in that island and is unknown to other people.

Ibrahim ibn Wasif-Shah
c. 1000 AD

When I discovered the Indies, I said that they were the richest dominion that there is in the world. I spoke of the gold, pearls, precious stones, spices . . .

Christopher Columbus

Columbus thought he was in Southeast Asia. Later these islands in the Caribbean came to be known as the "West Indies."

The Spice Trade: a Bibliographic Guide to Sources of Historical and Economic Information, Welch, Jeanie. p. ____

Monsoon Winds to the "Land of Gold"
REGIONAL MAPS

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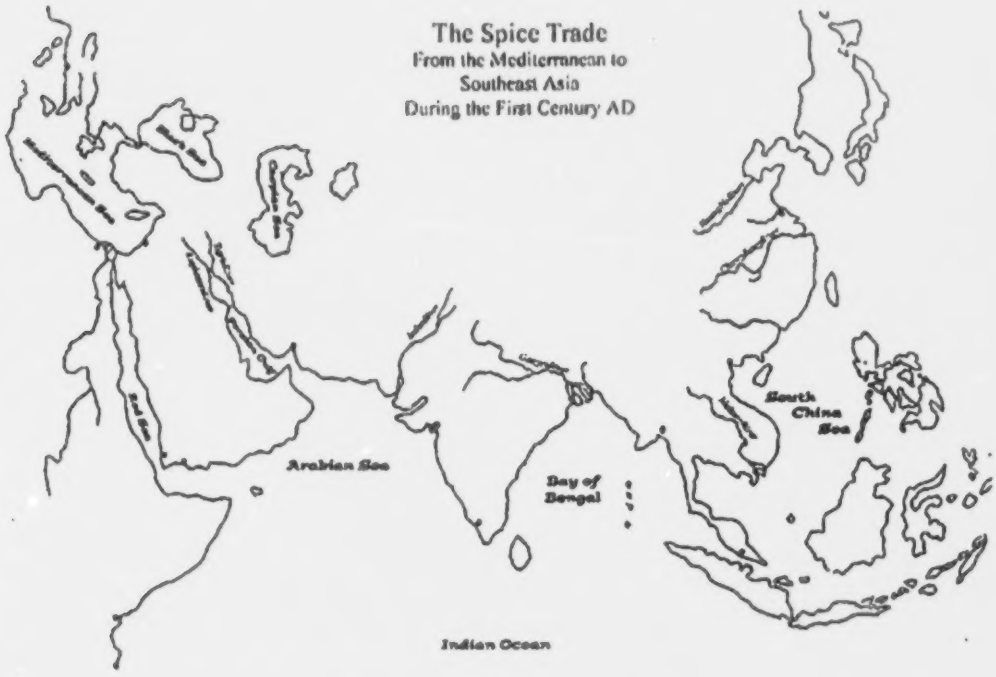
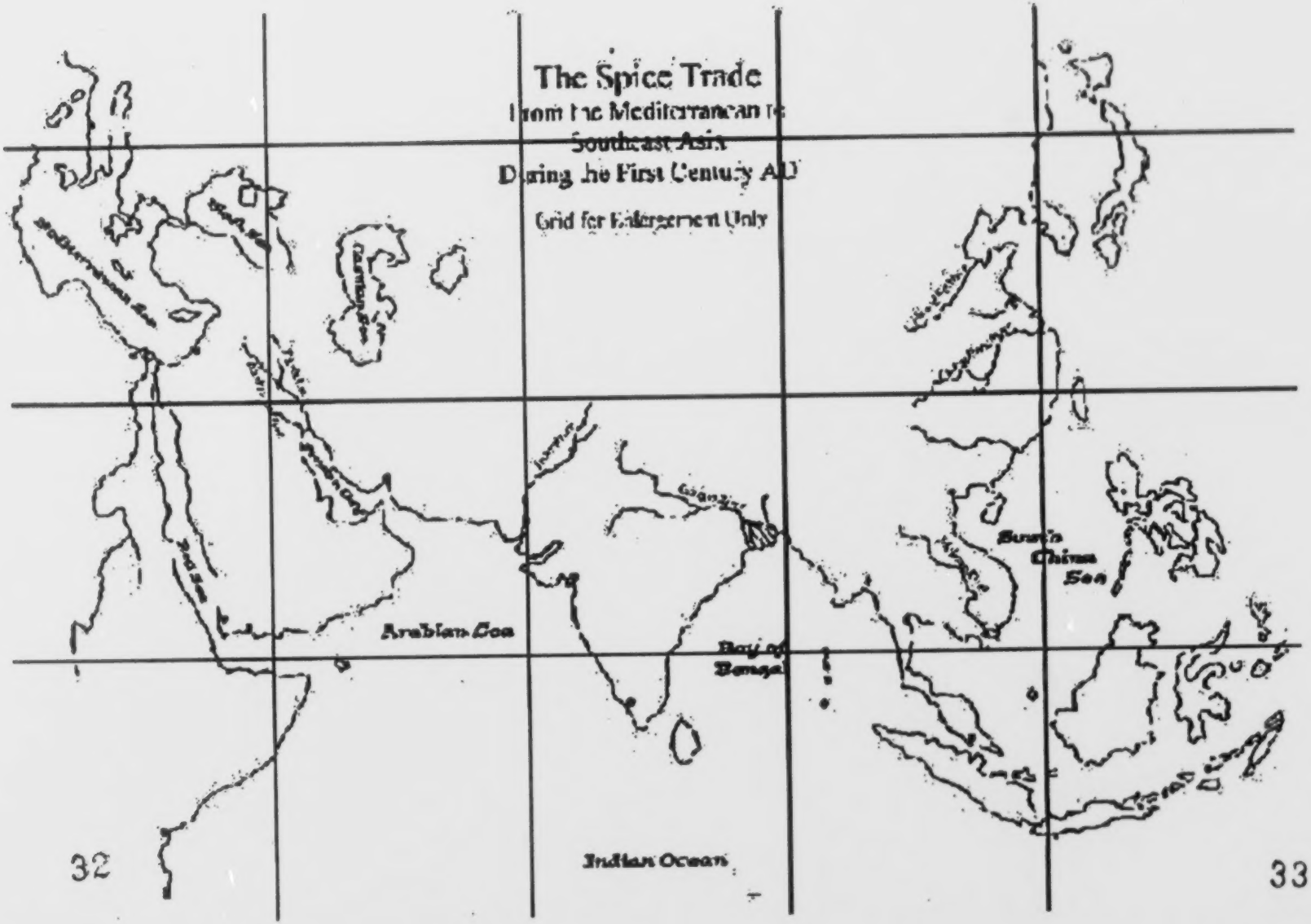
The Spice Trade – Student Map




The Spice Trade
From the Mediterranean to
Southeast Asia
During the First Century AD
Grid for Enlargement Only
Arabian Sea
Bay of Bengal
Indian Ocean
South China Sea
32
33

Monsoon Winds to the "Land of Gold"
HISTORIC MAPS ACTIVITY

Introductory Activity III: HISTORIC MAPS

The artifact box activity should show the inter-connectedness of cultures and some exchange of goods. It should raise questions about the actual geography.

- **Where are we?**
- **Who were these people?**
- **What did they know?**

The historic maps gives students the opportunity to examine Greco-Roman perceptions of the "shape of the world."

(Note to the teacher: these maps are reconstructions made 1,200 to 1,300 years later during the Renaissance. They are based on the written descriptions by Greek and Roman geographers, historians, astronomers, and travelers.)

Classifying Maps

Have students sit in eight cooperative groups. Distribute sets of photocopied maps (A through H) to each group. After examining and discussing the maps, ask groups to classify the maps. They can put them in chronological order, by geographic accuracy, or by any other logical system. Ask them to justify their decisions. Additional Information on Historical Maps

A. Hecataeus of Miletus was well-travelled. This map is based on his writings in *Description of the Earth*. Written in approximately 500 B.C., it shows some knowledge of India. (Wheatley, p. 123)

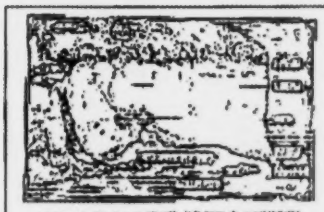
Anaximander of Miletus is credited as being the first person to draw a map of the world. This map by Hecataeus, also of Miletus, is similar to the one described by Herodotus.
(Berthon, p. 19)

B. Herodotus, the Greek historian, travelled throughout the Mediterranean world. This map shows his knowledge of Indian people, the Indus River, and the Indian Ocean which was called the Erythraean Sea. It dates to approximatelyb 450 B.C. Herodotus had travelled extensively throughout the Mediterranean and collected information about Asia.

Beyond India lay unknown and uninhabited deserts..."for the Indians live the furthest towards the east and the sunrise of all the Asians with whom we are acquainted or of whom we know by hearsay. Eastwards the country of the Indians is a sandy desert."
(Wheatley, p. 124)

"I cannot help but laughing at the absurdity of all the mapmakers--there are plenty of them--who show Ocean running like a river round a perfectly circular earth, with Asia and Europe of the same size." Herodotus said of the three known continents (Europe, Asia, and Africa) "Europe is as long as the other two put together, and for breadth is not, in my opinion, even to be compared with them."
(Berthon, p. 19)

Herodotus wrote about the Egyptian king Neco who reigned from 616 to 600 B.C. and who sent out a fleet of Phoenician ships to sail south on the Red Sea to attempt to sail around the east coast of Africa. Although the Phoenician records are lost, the voyage was said to have taken nearly three years before the ships entered the Mediterranean at the Pillars of Hercules (Strait of Gibralter). Said Herodotus, "These men made a statement which I do not believe myself, that they sailed on a westerly course 'round the southern end of Libya. They had the sun on the right -- to northward of them." Herodotus could not believe that Africa was so large as to extend into the southern hemisphere.
(Berthon, p. 20)



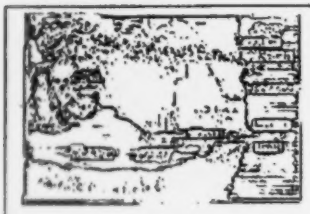
C. This map was based on information gathered by **Eratosthenes.** He was the librarian at Alexandria and this map dates to the early 200's B.C. (Wheatley, p. 125.)

Because of the campaigns of Alexander the Great, knowledge of Asia greatly increased during the century before Eratosthenes (334-323 B. C.). As the librarian at Alexandria, his ideas were based on the records of various government officials and envoys who had traveled as far as India. This map clearly shows Sri Lanka, known as "Taprobane" as well as the mouth of the Ganges River. Southeast Asia was not mentioned in his writings.
(Wheatley, p. 124)

Eratosthenes was a brilliant mapmaker. He was the first person to calculate the circumference of the earth based on the position of the sun on the summer solstice and the location of the cities Alexandria and Syrene. His result was within 200 miles of what we know today: 24,862 miles around the earth.
(Berthon, p. 25)

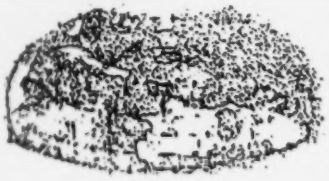
D. Strabo, the author of a seventeen volume encyclopedia about the known world, believed that the inhabitable world was twice as wide as it was long.1600's A.D. (Berthon, p. 21, 22, & 25.)

Strabo's extraordinary writings in the seventeen-volume encyclopedia Geography (18 A.D.) contained all the known information about the human, animal and physical world. He believed that the inhabitable world was twice as broad as it was long. Strabo did not believe ships or humans could survive travel south into the "torrid zone" where seas were so large they were uncrossable. From his travels he learned of Meroe (Khartoum) and the "cinnamon country" to the south. He proposed the idea that
spices came from the Indies, and he correctly described the shipping routes between the Mediterranean Sea and India. (Berthon, p. 25)
(Suarez, p. 65)



E. In 43 A.D. the Roman geographer **Pomponius Mela** was the first to mention the Southeast Asian islands of Chryse and Argyre, legendary lands of gold and silver. (Wheatley, p. 128-129.)

In 43 A.D. the Roman geographer, Pomponius Mela, was the first writer to make specific reference to Southeast Asia in his popular book on geography. For the next thousand years his mention of Chryse and Agyre were used to describe the legendary islands. He wrote, "Apart from those areas too warm for human settlement, the region between the Indus and the Ganges is occupied by black peoples resembling Ethiopians. Between Colis andTamus the coast runs straight. It is inhabited by retiring people who garner rich harvests from the sea . . . In the vicinity of Tamus is the island of Chryse ; in the vicinity of the Ganges that of Argyre. According to olden writers, the soil of the former consists of gold, that of the latter is of silver; and it seems very probable that either the name arises from this fact or the legend derives from the name." Pomponius Mela saw the need to balance the landmass on one side of the world with a counter-earth he named Antichthon. (Wheatley, p. 128-129) (Berthon, p. 33)



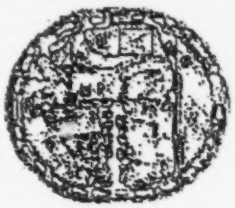
F. The ancient world as depicted by **Ptolemy** in 150 A.D. Notice that the continent of Africa extends far to the south, joining Asia in the far east. The Indian Ocean is a large sea. (Miller, p. 276.)

Claudius Ptolemy influenced geography for more than one thousand years. Born in Egypt, he wrote two great works, the Almagest (on astromomy) andGeography while librarian at Alexandria from 127 - 150 A.D. Knowledge of Asia, and the "Golden Peninsula" of Southeast Asia in particular, was described by the geography Marinus of Tyre. Ptolemy used his writings as the foundation for his Geography. His work in astronomy was largely based on the ideas of Hipparchus of Rhodes (three hundred years earlier) who proposed divicding the length and breadth of the world by 360 degrees. Miscalculations of the earth's circumference by later geographers caused Ptolemy to use figures for a much smaller world. This map shows lines of latitude and longitude not accurate by today's coordinates. Ptolemy's map shows Africa extending all the way to Asia, ending the idea that it was surrounded by water. Instead the Indian Ocean becomes a vast inland sea. The region called "Terra Incognita" was designed to balance the global landmass. Ptolemy's achievement was to depict the earth as a sphere on a map with curving coordinates of latitude and longitude. More than 1,300 years later, his ideas were rediscovered during the Renaissance. (Berthon, p. 32-36) (Suarez, p. 63-64)

G. Dionysus Perigetes (the Tourist) depicts the world in the second century, A.D. The Erythraeum Sea surrounds the known world.Chyse, "the Golden" is shown.

This summary of the world was made in the 2nd century, A.D. by Dionysus Periegetes (Dionysus the Tourist) so that readers might show "their superior knowledge among the ignorant." Precise locations seem less important than the vivid descriptions he gives.

"And when your keel has ploughed the deep waters of the Scythian Main, your route turns toward the Eastern Sea and brings you to the Island of Chryse, situated at the very rising of the sun. . . But if on leaving the northern climes, you direct your vessel across the sea towards the light of the sun at its fiery rising, you will see the Golden Island with its fertile soils."
(Wheatley, p. 131-133)



H. The thirteenth century **"Beatus" map** shows Paradise from which flows the four rivers: the Ganges, the Nile, the Tigris and the Euphrates. Based on the Judeo-Christian belief in Adam and Eve's banishment from the Garden of Eden, this map places Paradise in Southeast Asia. (Suarez, p. 70)

Medieval European maps, showing the Judeo-Christian belief in the bansishment of Adam and Eve from Paradise due to Original Sin, depict Southeast Asia as the site of the Biblical Eden. This early 13th century "Beatus" map shows four rivers which were believed to flow from there, the Ganges, Nile, Tigris and Euphrates. The islands of Chryse and Argyre are shown directly off the coast of Paradise. Travelers' accounts of Southeast Asia reinforced this idea.
"Within this wall there were the fairest and most crystal fountains in the whole world: and about the said fountains there were the most beautiful virgins in great number, and goodly horses also, and in a word, everything that could be devised for bodily solace and delight, and therefore the inhabitants of the country call the same place by the name of Paradise."
(Suarez, p. 69-70)

Mapping from travellers' tales

To underscore the ancient quest for geographic knowledge, read the "Story of the Half-Drowned Sailor." Use a world map to indicate what the ancient Egyptians learned about the location of India and the importance of the monsoon winds.

Guided Discussion

Debrief the "ancient map" activity through discussion. Prepare overhead transparencies of the eight maps to give additional details. Elicit comments from students:

- What can we tell by examining these maps?
- What was the Mediterranean view of the world?
- What do students recognize as accurate?

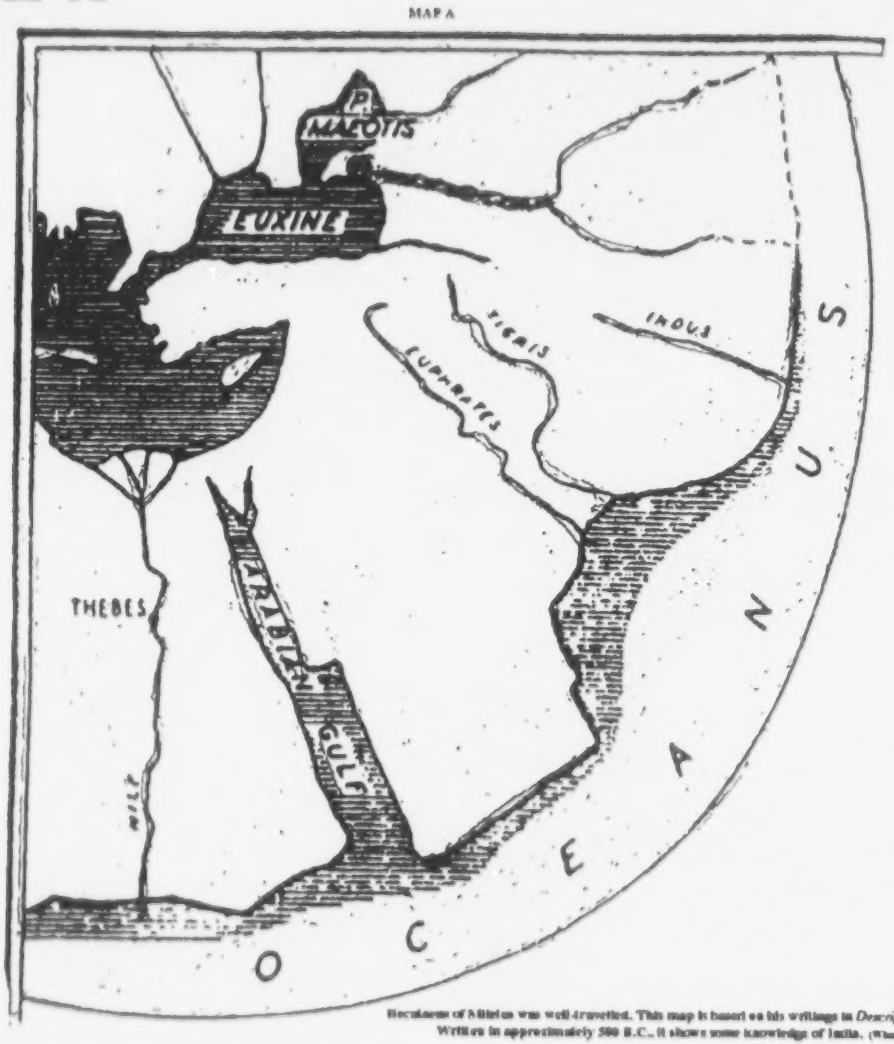
(Note: student maps have been "simplified" with extraneous place names deleted. Background information for each is provided for the teacher. Students can label additional places on their maps.)

Overview Map

Using the teacher's map as a guide, help students label the major trading centers from the Mediterranean to Southeast Asia during the first century A.D. The grid map is provided for students to enlarge the map for a wall display. These trading centers (or *entrepots*) will be the bases for the Trade Simulation.

- Teacher's Map
- Student Map
- Grid Map for Enlargement

MAP A



Herodotus of Miletus was well-traveled. This map is based on his writings in *Description of the Earth*. Written in approximately 500 B.C., it shows some knowledge of India. (Wheatley, p. 123)

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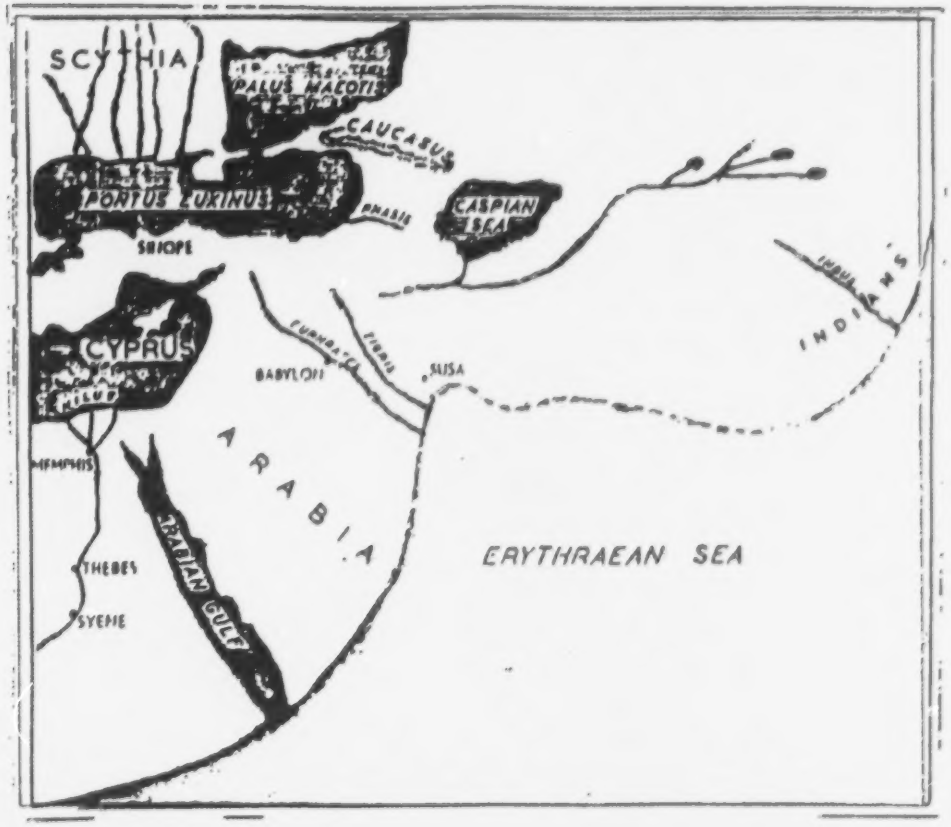
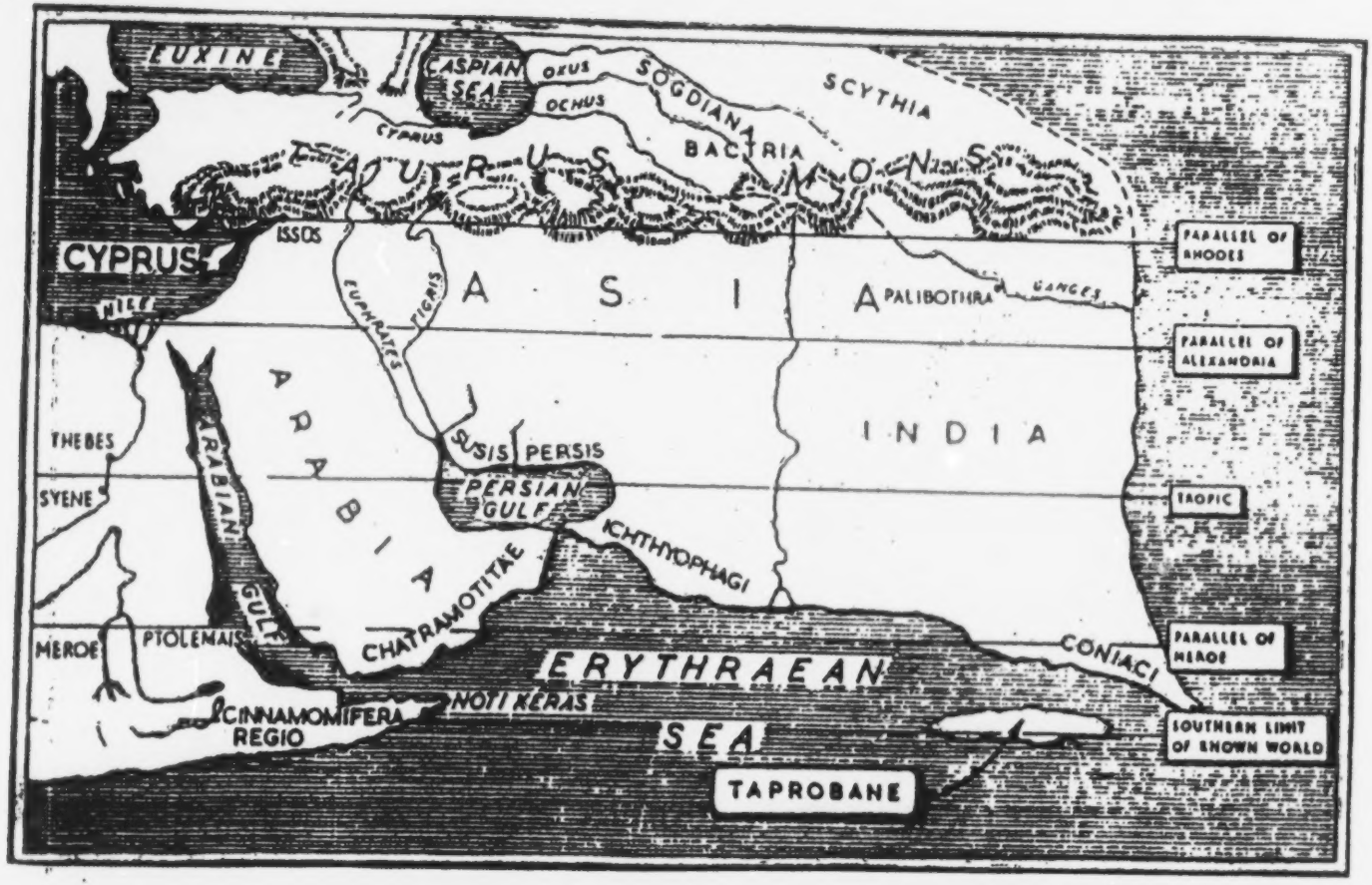
MAP B



Herodotus, the Greek historian, traveled throughout the Mediterranean world. This map shows his knowledge of Indian people and the Indus River.

MAP C



This map was based on information gathered by Eratosthenese, a librarian at Alexandria.

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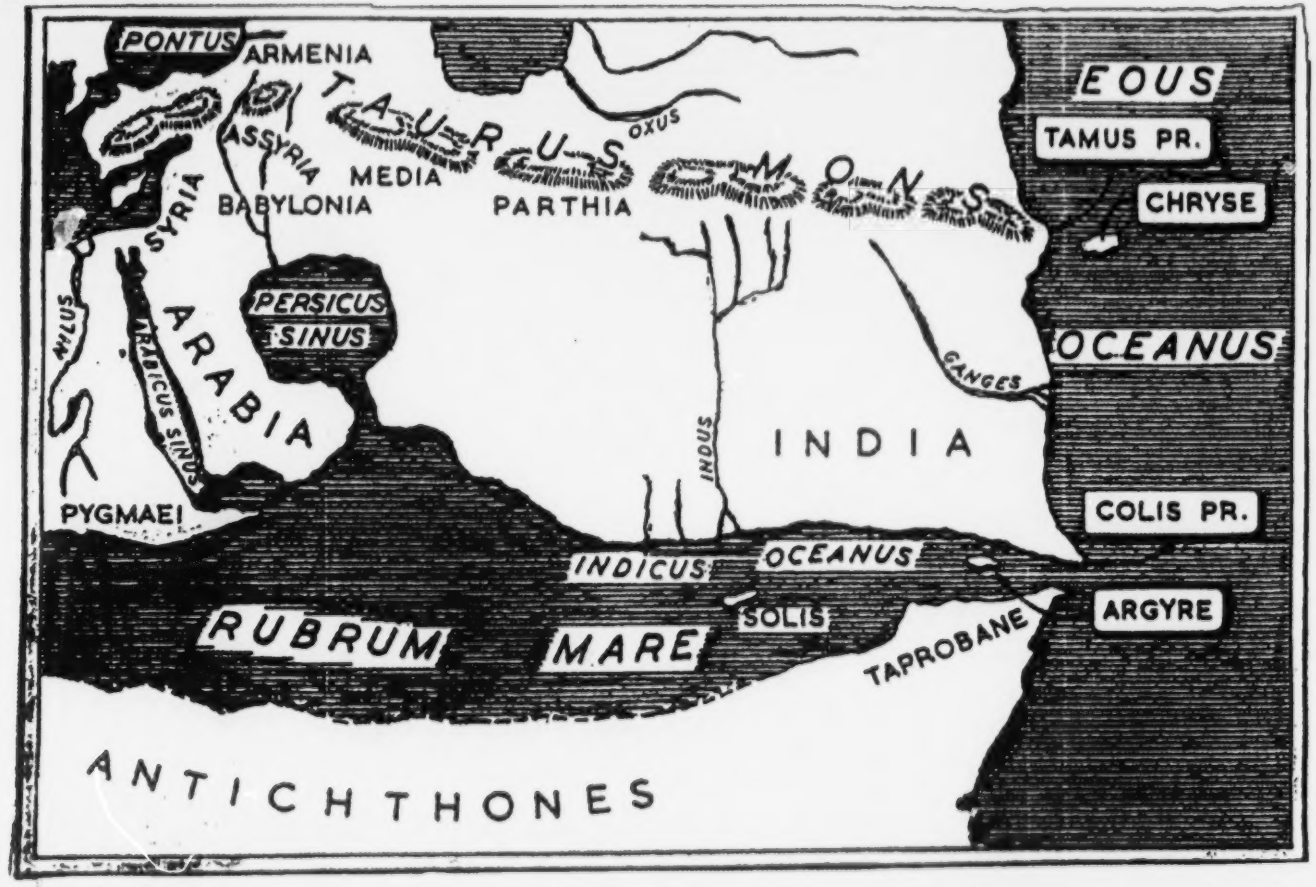
MAP D

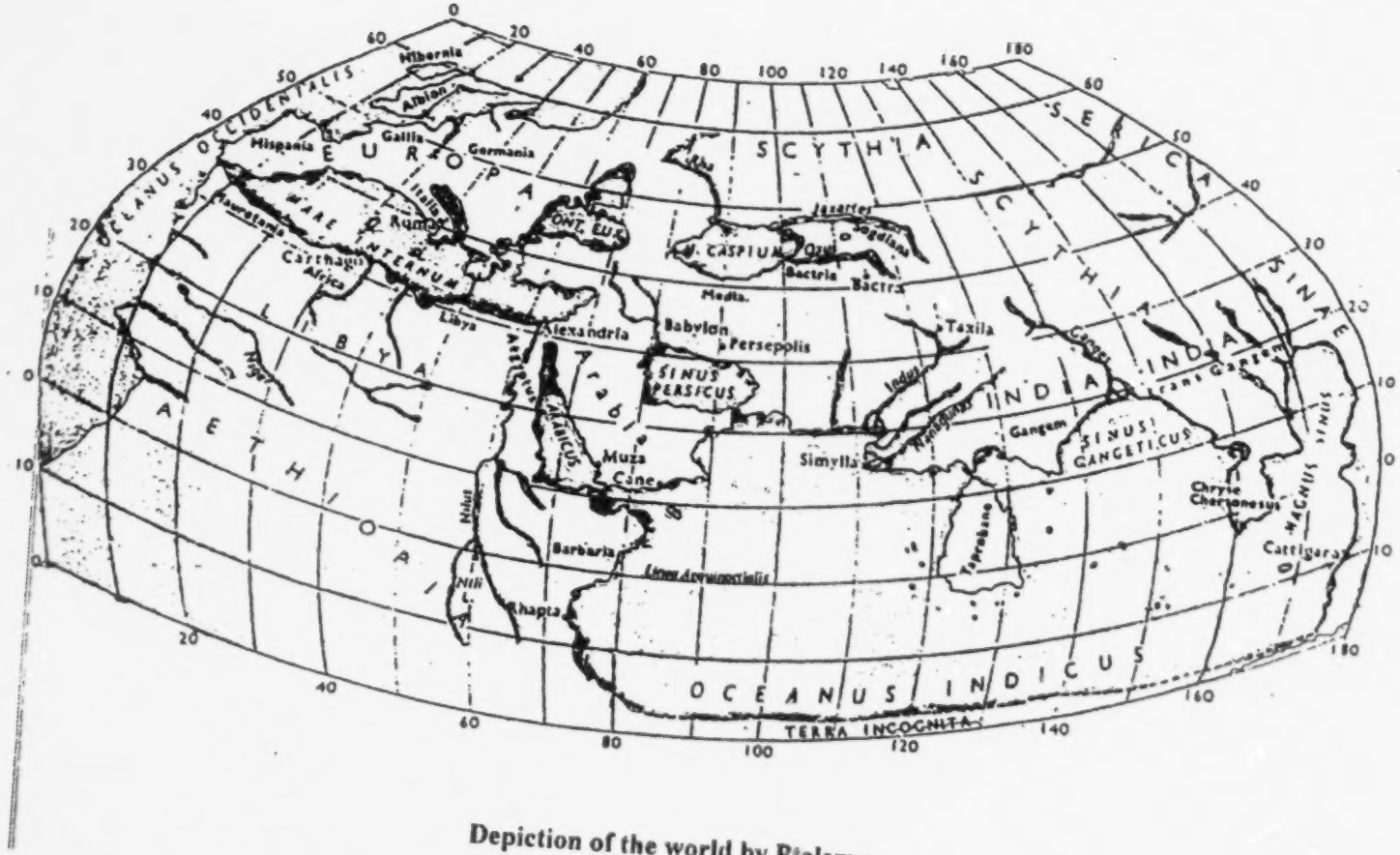
Strabo was the author of a seventeen volume encyclopedia about the known world.

MAP E



Pomponius Mela was the first to mention Chryse and Argyre, the legendary lands of gold and silver.

MAP F



Depiction of the world by Ptolemy.

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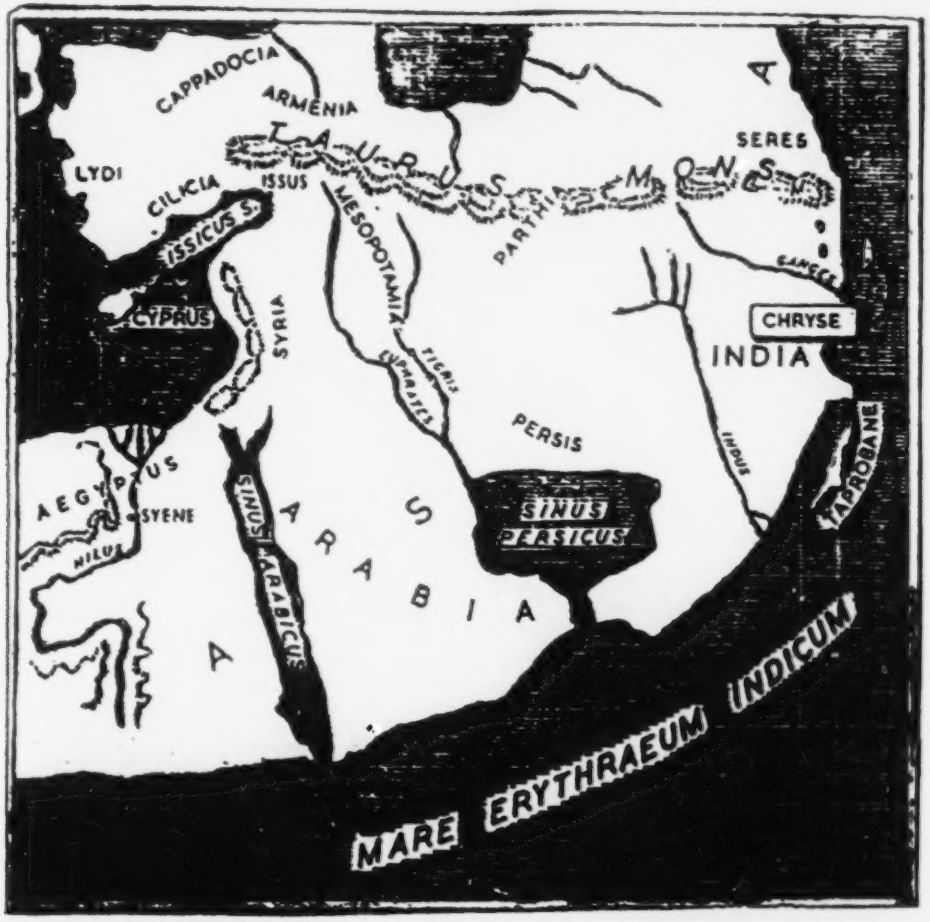
MAP G



Dionysus Perigetes (the Tourist) depicts the known world surrounded by the Erythraeam Sea.

MAP H

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Teacher's Map

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Student's Map

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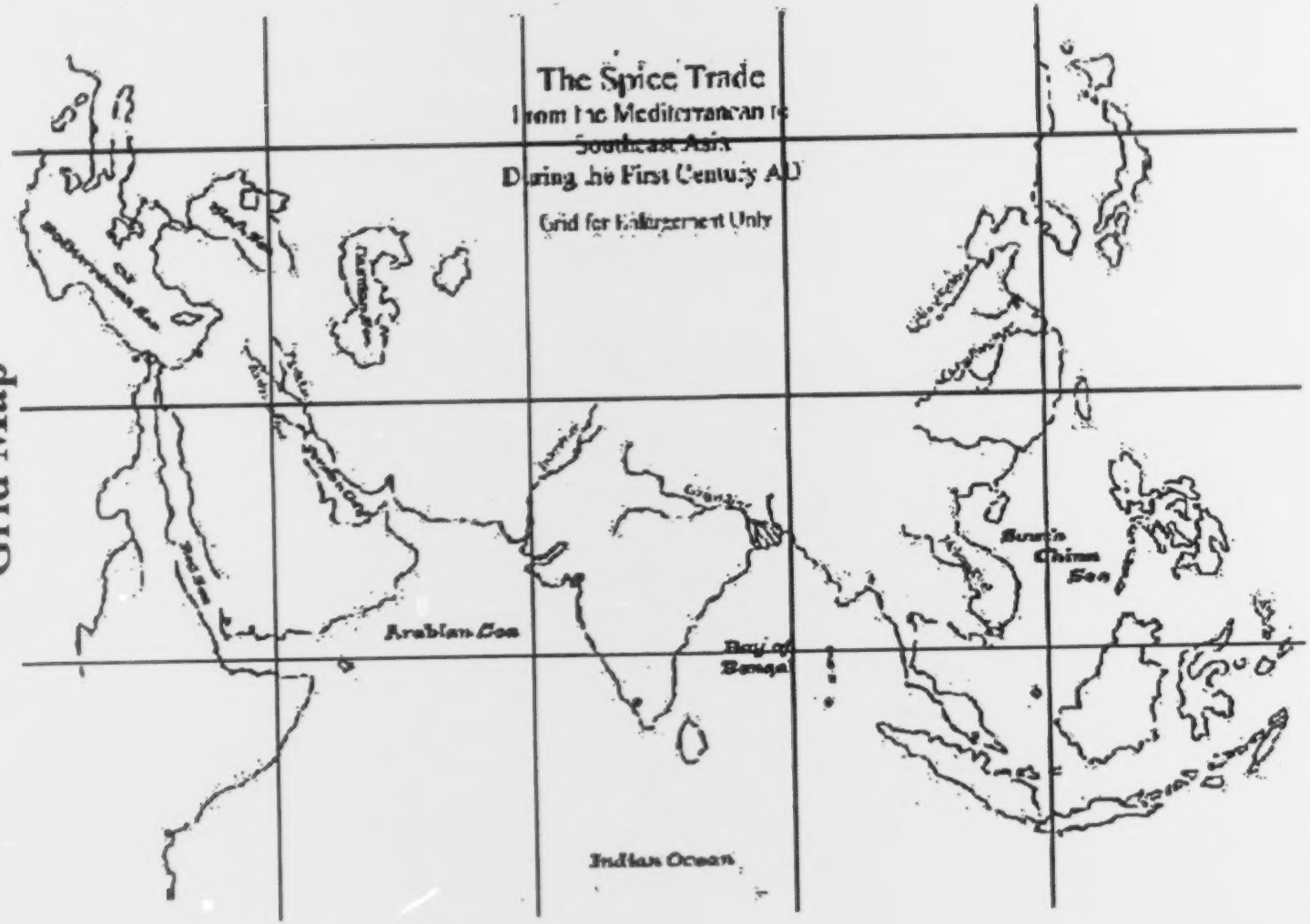
Grid Map



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Monsoon Winds to the "Land of Gold"
BACKGROUND POSTER

BACKGROUND NOTES

The maritime trade in "spices" accelerated during the height of the Roman Empire due to the ever-increasing demands of the wealthy classes for exotic luxury goods. Ask students to brainstorm a list of what "luxury goods" might mean to someone in ancient Rome, Egypt or China. (Examples should include jewelry and gemstones, textiles, art objects, exotic animals, foods and spices.) Draw parallels to their own lives to consider why goods have value and are costly. (Use economic terms: market, supply, scarcity, demand, need). Point out that today, rare or exotic goods can be quite costly and yet fashionable.

In classical times the term "spices" meant much more than flavorings for foods. Religious rituals required the burning of resins and incense to invoke the gods, to expel evil spirits, and to pay tribute to the emperors. Spices came in the form of ointments, powders, wood, bark, roots, resins, and herbs and were used in countless ways:

- perfumes in powders (aromata) (Queen Hatshepsut of Egypt used cinnamon as an aromatic as early as 1,500 BC; the henna-flower perfume of the Romans had cardamom added; rose perfume included ginger-grass. Both spices were first soaked in wine)
- in cosmetics
- incense for religious ceremonies (thumiata) (Egyptian temples burned a rich compound of spices known as kuphi. Julius Caesar's triumphal entrance into Rome was preceded by attendants carrying jars of burning spices as if he was a god; Romans threw 210 loads of spices onto the funeral pyre of Scylla.)
- fumigants to purify the air (In the Ganges Valley, burning aloe-wood was used both as as a perfume and as a fumigant for use after surgery; the Romans used cinnamon to protect clothing from moths).
- ingredients in healing ointments and medicinal drugs (Hippocrates, the Greek physician, prescribed pepper as a cure for disease. Dioscordes, an army physician, wrote Materia Medica on the function of spices and for their prescriptive uses for healing. His text lists twenty two pure, aromatic oils prescribed for specific ailments, such as safflower, sweet bay, myrrh, and myrtle, as well as twenty four compound ointments (made from herbs, resins, fragrant roots and woods) to be used for healing).
- preservatives (for embalming) (From earliest times, the Egyptians used rich mixtures of spices, including cloves as part of the mummification

process. Upon the death of Nero's wife, Poppaea, a year's imports of perfumes, including cinnamon, were sprinkled on her body for embalming.)

- antidotes against poisons (theriaca) (Crateuas, a famous physician, mentions a concoction using 36 ingredients; these include cumin, cardamom, anise, cassia, ginger, Indian nard, and myrrh. Mixed with honey and wine, it was said that one could withstand the strongest poison).
- love philtres and magical charms
- for anesthesia in surgery (Early Greek writings mention the use of cloves and other spices for use during surgery).
- for flavoring food and wine (used to preserve foods as well as to flavor since earliest times. The first cookbook in the modern sense was written by the Roman Apicius. The 478 recipes, primarily for the rich man's table, were of wide variety and included exotic ingredients and use of imported spices such as pepper, giner, oil of cinnamon and turmeric).
- as a valuable medium of exchange (Alaric of Gothe demanded 3,000 pounds of pepper from Rome in exchange for not sacking the city in 408 AD)

The sea trade was risky and often dangerous. It was also time-consuming and could take one or two years to complete the voyage. Myths and legends surrounded the origins of spices. Often traders were ignorant of the true origin of exotic goods they carried. It was also advantageous to conceal the source, because the strangeness and rarity of these spices meant that profits could be from forty to *one hundred times the investment.*

- Refer students to the class lists of tasty foods, grooming products, cosmetics, and medicines. Can they imagine the demand in ancient times for similar goods.

POSTER ACTIVITY

A thriving trade in spices existed in the ancient world, but certain items were only grown in Southeast Asia, India or China. (See chapter two in *Exploration by Sea* for a good description of the spice routes.) To learn about the major goods of the spice trade, students will return to their groups to make posters to "advertise" the following:

- cinnamon / cassia
- cloves

- nutmeg / mace
- ginger / turmeric
- sandalwood
- cardamom
- black pepper
- myrrh

Provide "spice" handouts (from *Encyclopedia of Herbal Medicine*) and poster making supplies as needed. Additional images can be found in books or websites (see references list). Each poster should display the following information:

- common name of plant/spice (title of poster)
- drawing of the plant
- drawing showing parts of plant used
- habitat (name of countries where grown)
- traditional and current (medicinal) uses

Monsoon Winds to the "Land of Gold"
TRADE SIMULATION ACTIVITY

DEVELOPING THE TOPIC III: Trade Simulation

In this activity, your students continue to work in groups that will represent major production centers for goods traded by sea during the period from 100 BC to 100 AD. They will make tokens to represent "luxury goods" that were typical of their culture. In a three-round simulation, they will trade for the goods they desire. Because of language barriers that existed, students must conduct their trades silently or use gestures. Point out to the students that often traders would speak more than one language to be effective.

Preparation: Make eight new groups for the simulation. Change the arrangement of the desks so that groups are separated "geographically" as shown below:

E
Barygaza
D
Muza
F
Muziris
C
G
Aromata
Funan

Telephone game

Do not reveal to the class the names of the various cultures. Encourage students to keep this to themselves as much as possible.

- Prominently label groups "A" through "H" as indicated.
- Begin with a short activity designed to show the class how misinformation and exaggeration (about the origins of spices) occurred in ancient times.

To do this, remind the class of the children's game of "telephone." The teacher will whisper a short tale about the origin of storax to one student on one side of the classroom. One by one, each student will whisper this "secret information" to the next person.

> *"The people are tall and regular featured, resembling the Chinese. That's why it is called Great Ch'in. The land produces the rhino which frightens chickens. They collect various fragrances and boil the juice to make storax."*
>
> *The Roman Empire in Chinese Sources*, DD Leslie and KHJ Gardiner, p. 109.

"Cultural Profile"

Distribute a "Cultural Profile" to each group. This gives some brief background on their culture and lists the major resources that were available for trade. Ask students to think about early economies:

- What would a culture trade? (natural resources or manufactured goods)
- What if they produce more of an item than can be consumed locally? (surplus)
- Does this affect the market for the item? (supply versus demand)
- Depending on your class, these concepts can be explored more or less before beginning the simulation assignment.

Assign students to:

- Work together to determine what goods they will make for trade using what they have available.
- Think about what they'd produce in one year for export.
- Make tokens (drawings on tagboard) that can be brought to the market for trading.

Give students plenty of time to discuss what form their goods will take. Some groups will have manufactured goods and others will have raw materials. Allow several days for the completion of the tokens. There is no limit to what students may bring or make.

Trading: Trade will occur in three rounds and may occur only between the groups designated on "Trading Instructions." *(See Teacher Guide)* Remind students that this is an activity designed to study the "spice trade." Emphasize that the spices were nearly as valuable as gold once they were imported to distant places along the trade route.

• Begin by distributing the "Import/Export" sheets to everyone. Have them make an inventory of all the items their culture has to trade. They should try to function as a "group" and not as as individuals as much as possible.

• Ask them to discuss with their group members what items they would like to obtain. Tell the students that they are all merchants. What items would be valuable to sell in the markets in their own cities? What is rare? What is useful or exotic?

Most of all, remind the class that when trading, they cannot speak -- they don't know any of the foreign languages of the merchant sailors they encounter!

Round One Round One: One person from each group goes to the neighboring group indicated to attempt trade. He or she should bring items that are marketable. (Other items should be "left at home" for other visiting traders to obtain.) A student may only visit the group indicated. Allow four minutes before sending traders home with their goods. Encourage students to discuss among themselves what seemed to be "valuable."

Round Two Round Two: A new student (or two) from each group goes to trade (with the group indicated). Marketable items must be carried to that group for trade. Items obtained in the previous round may be traded again. The second trader should have some idea of what has value. Allow four minutes for trading. Be sure that they are not using language to communicate.

Round Three Round Three: Teacher intervenes at the start of this round and reads an edict from Emperor Vespasian which discourages the transfer of Roman coins to foreign lands. Begin final trading round with third (and fourth) traders moving to regions indicated. Allow three minutes for this session.

Inventories When all the students have returned to their home groups, have them complete their "inventories" listing what they obtained (as a group) under "Imports."

Debriefing Debriefing: Allow time for small-group discussion of the following questions:

- What export(s) did you learn was "in demand" in other regions?
- What did your culture try to obtain that was "costly?"
- What item(s) was so rare that you could not obtain it?
- What items did you obtain that were "tradeable" in other regions?
- Did you hear or see items that were too "costly" to obtain?
- What would you do differently "next time?"
- What culture(s) did you trade with?
- How did Vespasian's Edict affect round three?
- What did you learn about trade from doing this activity?

Monson Winds to the "Land of Gold"
MAJOR IMPORTS AND EXPORTS BY REGION

A. ROME	Exports	Imports	Tribute Items
	• gold (coins) • glassware • oil lamps • wool • purple fabric • metal weapons • cotton • tools	• pepper • silk • cloves • nutmeg • grain • frankincense • pearls • nard (ginger root	• exotic animal

B. EGYPT (Alexandria)	Exports	Imports	Tribute Items
	• grain • papyrus • linen / flax • glass vases • painted pottery • lotions • perfumes • (repackaged spices)	• pepper • cedar wood • pine wood • tin • iron • wine • nuts / figs • spices	

C. ARABIA	Exports	Imports	Tribute Items
	• frankincense • (Muza) myrrh • wine • sesame oil • repackaged cinnamon • repackaged pepper • repackaged sandalwood • repackaged tortoise shell	• clothing • textiles • copper • tin • grain • olive oil • wine • **cinnamon** • **pepper** • **sandalwood** • **tortoise shell**	• horses • pack mules • silverware • goldware • deluxe clothing

D. Horn of AFRICA (Aromata)	Exports	Imports	Tribute Items
	• myrrh • frankincense • ivory • tortoise shell • rhinoceros horn • repackaged cinnamon • repackaged cloves	• rice • **cinnamon** • **cloves**	

E. INDIA (Barygaza)	Exports	Imports	Tribute Items
	• cotton • sandalwood • pearls • semi-precious stones (imported) • tortoise shell (imported) • silk (from China) • nard (ginger root)	• clothing • gold (Roman coins) • glassware • wine • medicines • tin/ copper • silverware	• wine (Italian) • precious silverware • slave musicians • choice unquents

F. SOUTH INDIA (Muziris)	Exports	Imports	Tribute Items
	• black pepper • nard (ginger root) • ivory • pearls • cloves (imported) • cinnamon (imported) • tortoise shell • cardamom (imported) • fine cotton clothing	• gold (Roman coins) • glassware • silverware • wine • clothing	

G. CAMBODIA (Funan/OcEo)	Exports	Imports	Tribute Items
	• nutmeg • cinnamon bark • ivory tusks • cardamom • cloves • aloeswood • sandalwood • pearls • gold • teakwood	• rice • silk • porcelain • lacquerware • wine • sugar • wheat • iron	

H. Han CHINA (Cattigara)	Exports	Imports	Tribute Items
	• porcelain • woven silk • gold • silver • copper • textiles • amber • cinnabar	• pearls • spices • elephant tusks • rhinoceros horns • pepper	

Monsoon Winds to the "Land of Gold"
EXTENSIONS

- Read chapters 1, 2 and 3 from *The Silk and Spice Routes: Exploration by Sea.* Discuss the ways this book confirms or enhances understanding of the trade in spices.
- Distribute "Archaeological Artifact: Funan" handouts to students. Examine the images to discuss these questions: What do you see? Where did the item originate? What do these discoveries indicate about contact with Southeast Asia during ancient times?
- Students can research ancient shipbuilding and draw examples of the various distinctive sailing vessels from each culture.
- Make a dish that features a particular spice as an important ingredient. Feature cinnamon, ginger, cloves, cardamom, nutmeg, mace or pepper.
- Research the ingredients in favorite candy bars (See "The World in a Candy Bar" lesson) to recognize how international trade is part of today's global economy.

Monsoon Winds to the "Land of Gold"
VOCABULARY

Unit vocabulary related to economics and geography

barter

demand (supply and)

entrepot

manufactured goods

maritime

monsoon

natural resources

profit

scarcity

spice - comes from Latin species and means "something of special value."

supply (and demand)

East Indies - refers to the all of the islands of Indonesia

West Indies - refers to the islands of the "New World" in the Caribbean Ocean; they were so-named by Columbus who thought he was in Southeast Asia.

Spice Islands - Outdated term that refers to islands in eastern Indonesia, including the Moluccas, Ternate and Tidore.

Monsoon Winds to the "Land of Gold" REFERENCE/LINKS

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